



1. - 20. Cancelled

21. (New) A method comprising producing a pharmaceutical preparation from at least:
- a) a chemokine, or
 - b) a nucleic acid encoding a chemokine, or
 - c) a combination of a) and b), or
 - d) a chemokine fragment which possesses the ability to bind to a chemokine receptor, or
 - e) a chemokine derivative which possesses the ability to bind to a chemokine receptor.
22. (New) The method as claimed in claim 21 wherein a) or b) or a combination of a) and b) is used in producing the pharmaceutical preparation.
23. (New) The method as claimed in claim 21, wherein said pharmaceutical preparation is capable of recruiting mesenchymal precursor cells and/or mesenchymal stem cells for forming tissues.
24. (New) A method comprising recruiting (i) mesenchymal precursor cells, (ii) local mesenchymal precursor cells and/or (iii) mesenchymal stem cells, with:
- a) a chemokine, or
 - b) a nucleic acid encoding a chemokine, or
 - c) a combination of a) and b), or
 - d) a chemokine fragment which possesses the ability to bind to a chemokine receptor, or
 - e) a chemokine derivative which possesses the ability to bind to a chemokine receptor.
25. (New) The method as claimed in claim 24 wherein (i), (ii), and/or (iii) are recruited with a chemokine, a nucleic acid encoding a chemokine, or a combination of a chemokine and a nucleic acid encoding a chemokine.

26. (New) The method as claimed in any of claims 21, 22, 23, or 24 wherein the chemokine is selected from the group consisting of CCL19, CCL21, CCL27, CCL28, CCL20, CXCL9, CXCL10, CXCL11, CXCL16, CXCL13, CXCL5, CXCL6, CXCL8, CXCL12, CCL2, CCL8, CCL13, CCL25, CCL3, CCL4, CCL5, CCL7, CCL14, CCL15, CCL16, CCL23, CX3CL1, XCL1, XCL2, CCL1, CCL17, CCL22, CCL11, CCL24, CCL26, CXCL1, CXCL2, CXCL3, CXCL7, and mixtures thereof, wherein the chemokine fragment is a fragment of any of the foregoing chemokines, and wherein the chemokine derivative is a derivative of any of the foregoing chemokines.
27. (New) The method as claimed in claim 26, wherein the chemokine is selected from the group consisting of CCL19, CCL21, CCL27, CCL28, CCL20, CXCL9, CXCL10, CXCL11, CXCL16, CXCL13, CXCL5, CXCL6, CXCL8, CXCL12, CCL2, CCL8, CCL13, CCL25, and mixtures thereof, wherein the chemokine fragment is a fragment of any of the foregoing chemokines, and wherein the chemokine derivative is a derivative of any of the foregoing chemokines.
28. (New) The method as claimed in claim 27, wherein the chemokine is selected from the group consisting of CCL19, CCL21, CCL27, CCL28, CCL20, CXCL9, CXCL10, CXCL11, and mixtures thereof, wherein the chemokine fragment is a fragment of any of the foregoing chemokines, and wherein the chemokine derivative is a derivative of any of the foregoing chemokines.
29. (New) The method as claimed in any of claims 21, 22, 23, or 24, wherein a mixture of chemokines is used.
30. (New) The method as claimed in claim 21, wherein the nucleic acid encoding a chemokine is in the form of RNA, DNA, cDNA or ssDNA.
31. (New) The method as claimed in claim 21, wherein the pharmaceutical preparation is formed from a nucleic acid encoding a chemokine, and wherein the nucleic acid encoding the chemokine is in the form of RNA, DNA, cDNA, or ssDNA.

32. (New) The method as claimed in any of claims 23, 24, or 25, wherein the mesenchymal precursor cells or mesenchymal stem cells are recruited from bone marrow.
33. (New) The method as claimed in claim 21, wherein the pharmaceutical preparation is produced in a form which is suitable for injection.
34. (New) The method as claimed in claim 33, wherein the pharmaceutical preparation additionally comprises:
- one or more suitable auxiliary substances,
 - one or more biologically degradable polymers,
 - at least one active compound which is selected from differentiation and growth factors and mixtures thereof,
- and mixtures of two or more of the above.
35. (New) The method as claimed in claim 24, wherein the chemokine and/or a nucleic acid encoding a chemokine is used in combination with an active compound which is selected from differentiation and growth factors and mixtures thereof.
36. (New) The method as claimed in claims 34 or 35, wherein the differentiation and growth factors induce chondrogenesis or osteogenesis.
37. (New) A pharmaceutical preparation which comprises (i) a chemokine or (ii) a nucleic acid encoding a chemokine, wherein the chemokine of (i) or (ii) is:
- a) a chemokine selected from the group consisting of CCL19, CCL21, CCL27, CCL28, CCL20, CXCL9, CXCL10, CXCL11, CXCL16, CXCL13, CXCL5, CXCL6, CXCL8, CXCL12, CCL2, CCL8, CCL13, CCL25, CCL3, CCL4, CCL5, CCL7, CCL14, CCL15, CCL16, CCL23, CX3CL1, XCL1, XCL2, CCL1, CCL17, CCL22, CCL11, CCL24, CCL26, CXCL1, CXCL2, CXCL3 and CXCL7; or
 - b) a chemokine selected from the group consisting of CCL19, CCL21, CCL27, CCL28, CCL20, CXCL9, CXCL10, CXCL11, CXCL16,

CXCL13, CXCL5, CXCL6, CXCL8, CXCL12, CCL2, CCL8, CCL13 and CCL25; or

- c) a chemokine selected from the group consisting of CCL19, CCL21, CCL27, CCL28, CCL20, CXCL9, CXCL10 and CXCL11; or
- d) a mixture of any of the foregoing chemokines; or
- e) a chemokine fragment which possesses the ability to bind to a chemokine receptor or a chemokine derivative which possesses the ability to bind to a chemokine receptor.

38. (New) A pharmaceutical preparation which comprises a nucleic acid encoding a chemokine in the form of RNA, DNA, cDNA or ssDNA.

39. (New) The pharmaceutical preparation as claimed in claims 37 or 38 which additionally comprises:

- A) one or more suitable auxiliary substances, or
- B) one or more biologically degradable polymers, or
- C) at least one active compound which is selected from differentiation and growth factors and mixtures thereof, or
- D) mixtures of two or more of A), B), C).

40. (New) The pharmaceutical preparation as claimed in claims 37 or 38 which is in the form of an injection solution, of a fibrin adhesive, of a substrate for transplantation, of a matrix, of a tissue patch, or of suture material.

41. (New) In a method of forming new tissue in a subject, the improvement comprising forming said tissue by recruiting (i) mesenchymal precursor cells, (ii) local mesenchymal precursor cells and/or (iii) mesenchymal stem cells using

- a) a chemokine, or
- b) a nucleic acid encoding a chemokine, or
- c) a combination of a) and b), or

- d) a chemokine fragment which possesses the ability to bind to a chemokine receptor, or
- e) a chemokine derivative which possesses the ability to bind to a chemokine receptor.

- 42. (New) The improvement as claimed in claim 41 comprising forming said tissue using a), b), or c).
- 43. (New) The improvement as claimed in claims 41 or 42 wherein the cells of (i), (ii), and/or (iii) are recruited from bone marrow.